CS626 CLOUD COMPUTING
( Elective – IV )

Objective of the Course:
Cloud computing has evolved as a very important computing model, which enables information, software, and shared resources to be provisioned over the network as services in an on-demand manner. This course provides an insight into what is cloud computing and the various services cloud is capable.

UNIT - I
Introduction: Definition, Historical developments, Computing platforms and technologies.
Principles of Parallel and Distributed Computing: Parallel versus distributed computing, Elements of parallel computing, Elements of distributed computing, Technologies for distributed computing.

UNIT - II
Virtualization: Characteristics, Virtualization techniques, Virtualization and cloud computing, Pros and cons of virtualization, Technology examples.

UNIT - III
Concurrent Computing- Thread Programming: Programming applications with threads, Multithreading with Aneka, Programming applications with Aneka threads.
High Throughput Computing- Task Programming: Task computing, Task-based application models, Aneka task-based programming.

UNIT - IV

UNIT - V
Cloud Applications: Scientific applications in – Healthcare, Biology, Geo-science; Business applications in – CRM and ERP, Productivity, Social networking, Media applications, Multiplayer online gaming.
Advanced Topics in Cloud Computing: Energy efficiency in clouds, Market based management of clouds, Federated clouds / InterCloud, Third party cloud services.

TEXT BOOKS :
REFERENCE BOOKS: